

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A 3-grid neutral beam source comprising:
a plasma generating chamber;
a grid assembly including first to third grids, which are sequentially overlapped with each other by interposing an insulation material therebetween for obtaining a great amount of ion flux at a low ion energy; and
a reflective member for converting an ion beam into a neutral beam by reflecting the ion beam.

2. (Currently Amended) ~~The 3-grid neutral beam source as claimed in claim 1, A~~
3-grid neutral beam source comprising:

a plasma generating chamber;
a grid assembly including first to third grids, which are sequentially overlapped with each other by interposing an insulation material therebetween for obtaining a great amount of ion flux at a low ion energy; and
a reflective member for converting an ion beam into a neutral beam by reflecting the ion beam,

wherein the first grid is connected to a positive voltage power supply, the second grid is connected to a ground, and the amount of ion flux is increased due to a potential difference between the first and second grids.

3. (Currently Amended) ~~The 3-grid neutral beam source as claimed in claim 1, A~~
3-grid neutral beam source comprising:

a plasma generating chamber;
a grid assembly including first to third grids, which are sequentially overlapped with each other by interposing an insulation material therebetween for obtaining a great amount of ion flux at a low ion energy; and
a reflective member for converting an ion beam into a neutral beam by reflecting the ion beam,

wherein a first positive voltage is applied to the first grid, which is positioned at an

uppermost portion of the grid assembly adjacent to the plasma generating chamber[[],] in order to accelerate ion beams, and a second positive voltage is applied to the third grid, which is positioned at a lowest portion of the grid assembly[[],] so as to prevent the ion beams from obtaining a high energy during a neutralization process, the first positive voltage being different from the second positive voltage.

4. (Original) The 3-grid neutral beam source as claimed in claim 3, wherein the first positive voltage is higher than the second positive voltage.

5. (Original) The 3-grid neutral beam source as claimed in claim 3, wherein the first positive voltage is lower than the second positive voltage.

6. (Currently Amended) ~~The 3-grid neutral beam source as claimed in claim 1, A~~
3-grid neutral beam source comprising:

a plasma generating chamber;

a grid assembly including first to third grids, which are sequentially overlapped with each other by interposing an insulation material therebetween for obtaining a great amount of ion flux at a low ion energy; and

a reflective member for converting an ion beam into a neutral beam by reflecting the ion beam,

wherein the first grid is connected to a positive voltage power supply, the second grid is connected to a ground, the amount of ion flux is increased due to a potential difference between the first and second grids, a first positive voltage is applied to the first grid, which is positioned at an uppermost portion of the grid assembly adjacent to the plasma generating chamber[[],] in order to accelerate ion beams, and a second positive voltage lower than the first positive voltage is applied to the third grid so as to decrease ion energy of ion beams.

7. (New) A 3-grid neutral beam source comprising:

a plasma generating chamber;

a grid assembly including first to third grids, which are sequentially overlapped with each other by interposing an insulation material therebetween for obtaining a great amount of ion flux at a low ion energy; and

a neutral beam producing member for converting an ion beam from the grid assembly into a neutral beam.

8. (New) A method of producing a neutral beam using a 3-grid neutral beam source having a grid assembly including first to third grids which are sequentially overlapped with each other by interposing an insulation material therebetween, the method comprising:

- applying a positive voltage to the first grid;
- applying a ground to the second grid;
- accelerating ions to the first grid having an applied positive voltage; and
- converting an ion beam from the grid assembly into a neutral beam.

9. (New) A method of producing a neutral beam using a 3-grid neutral beam source having a grid assembly including first to third grids which are sequentially overlapped with each other by interposing an insulation material therebetween, the method comprising:

- applying a first positive voltage to the first grid;
- applying a second positive voltage to the third grid, the first positive voltage being different from the second positive voltage;
- accelerating ions to the first grid having an applied first positive voltage;
- directing the accelerated ions from the first grid to the third grid where the second positive voltage is such so as to decrease the energy of ions from the first grid; and
- converting an ion beam from the grid assembly into a neutral beam.

10. (New) The method of producing a neutral beam as claimed in claim 9, further comprising:

- applying a ground to the second grid.